Installation Instructions for the DS7457 Single Zone Multiplex Input Module

1.0 Description

The DS7457 is a Single Zone Multiplex Input Module that is designed to operate with compatible multiplex systems. It is intended to monitor conventional Normally Open or Normally Closed dry contacts and report their status as multiplex addresses to the control system. The DS7457 can monitor one loop and provides a separate tamper loop. It occupies one multiplex zone address on the system.

2.0 Specifications

- **Control Panel Requirements:** The DS7457 is designed to work with the following control panels:
  - A Detection Systems DS7400, DS7400X, or DS7400Xi control panel with a DS7430 or DS7436 Multiplex Expansion Module. The DS7400 and DS7400X require ROM version 1.07 or greater.
  - A Detection Systems DS9400 AddressiFire 255 Series Fire Alarm Control Panel (FACP) with a DS9431 Multiplex Expansion Module. The DS9400 requires ROM version 2.0 or greater.
- **Wiring:** Refer to the specific multiplex expansion module's literature for multiplex wiring requirements. The length of the wiring connected to the protection loop (and tamper loop) on the DS7457 must be less than 250 ft. (76 m).
- The recommended wiring to the control is standard #18 (1.22 mm) or #22 (0.74 mm) AWG, quad (4-wire) cable. **Do not use shielded or twisted pair cable.**
- **Current Draw:** 0.35 mA (Standby and Alarm)
- **Minimum Voltage For Operation:** 8 VDC peak

3.0 Installation

These instructions assume that the control panel is installed and is working properly.

IMPORTANT

The DS7457 must be programmed before installation. See your panel installation guide for programming information.

Disconnect the power to the multiplex loop before running wires and connecting the DS7457. Connect the DS7457 as shown in the following examples.

See Figure 1 for detailed noise suppression diode connections. The diode appears in Figures 2-5.

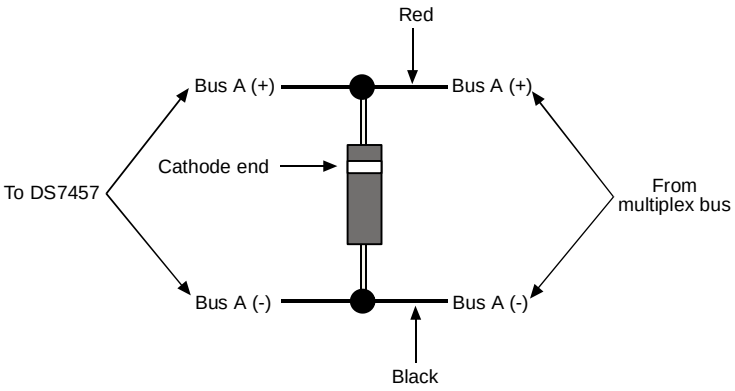


Figure 1: Noise Suppression Diode Connections

IMPORTANT

Make sure the cathode end of the noise suppression diode, indicated by a white stripe, connects to the positive (+) line.

3.1 DS7400 Series Control Panel Wiring

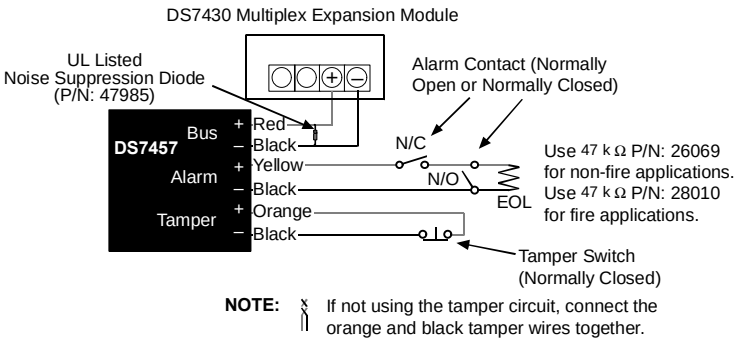
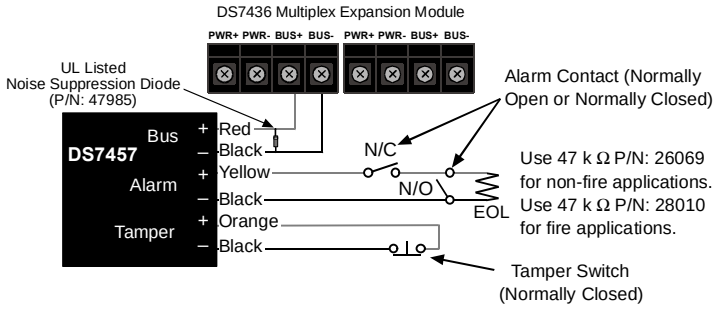


Figure 2: DS7430 to DS7400 Series Wiring

IMPORTANT

For UL Listed fire installations, Normally Open (N/O) contacts must be used.



NOTE: If not using the tamper circuit, connect the orange and black tamper wires together.

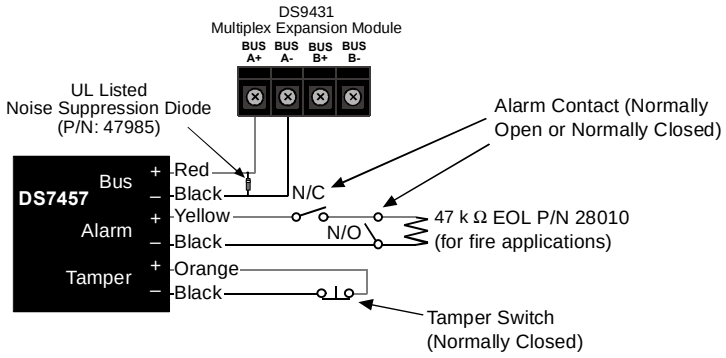
NOTE: Bus A or Bus B may be used.

IMPORTANT

Do not mix Fire and Burglar zones on the same bus. Select one bus for Fire Zones and one bus for Burglar zones.

Figure 3: DS7436 to DS7400 Series Wiring

3.2 DS9400 Fire Alarm Control Panel Wiring



NOTE: If not using the tamper circuit, twist or short orange and black tamper wires together.

NOTE: Bus A or Bus B may be used

Figure 4: DS7457 to DS9431 Contact Wiring

IMPORTANT

For UL Listed fire installations, Normally Open (N/O) contacts must be used.

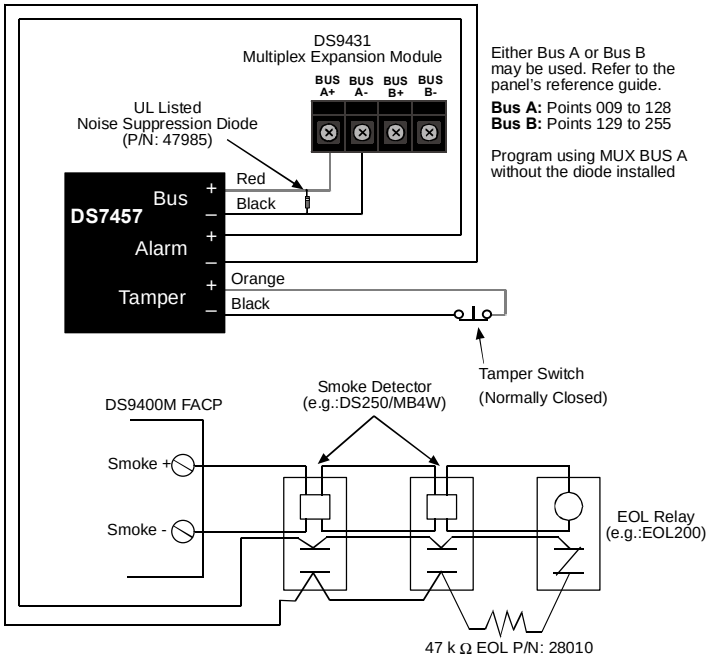


Figure 5: DS7457 to DS9431 Smoke Detector Wiring

4.0 Multiplex Programming

Consult your DS7400 Control Panel or your DS9400/ AddressiFire 255 Fire Alarm Control Panel installation guides for programming information of the DS7457 Multiplex Module.

IMPORTANT

For DS7400 Series panels, the DS7457 is programmed as a sensor, not a contact.

Detection Systems, Inc.
130 Perinton Parkway, Fairport, New York, USA 14450-9199
(585) 223-4060 • (888) 289-0096 • Fax: (585) 223-9180 • Technical Service: (888) 886-6189

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